SYSTEM AND METHOD FOR PROCESSING TRAINING
DATA FOR A STATISTICAL APPLICATION
Jonathan Qiang Li
Attorney Docket No. 10031315-1

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Fig. 1

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TRAINING DATA
STRUCTURE # 74

FEATURE 1: 1.2 cm
FEATURE 2: 2.3 cm

CLASSIFICATION: PART
XY128

201

PART NO.
XY123

200

FIGURE 2

SYSTEM AND METHOD FOR PROCESSING TRAINING
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Jonathan Qiang Li
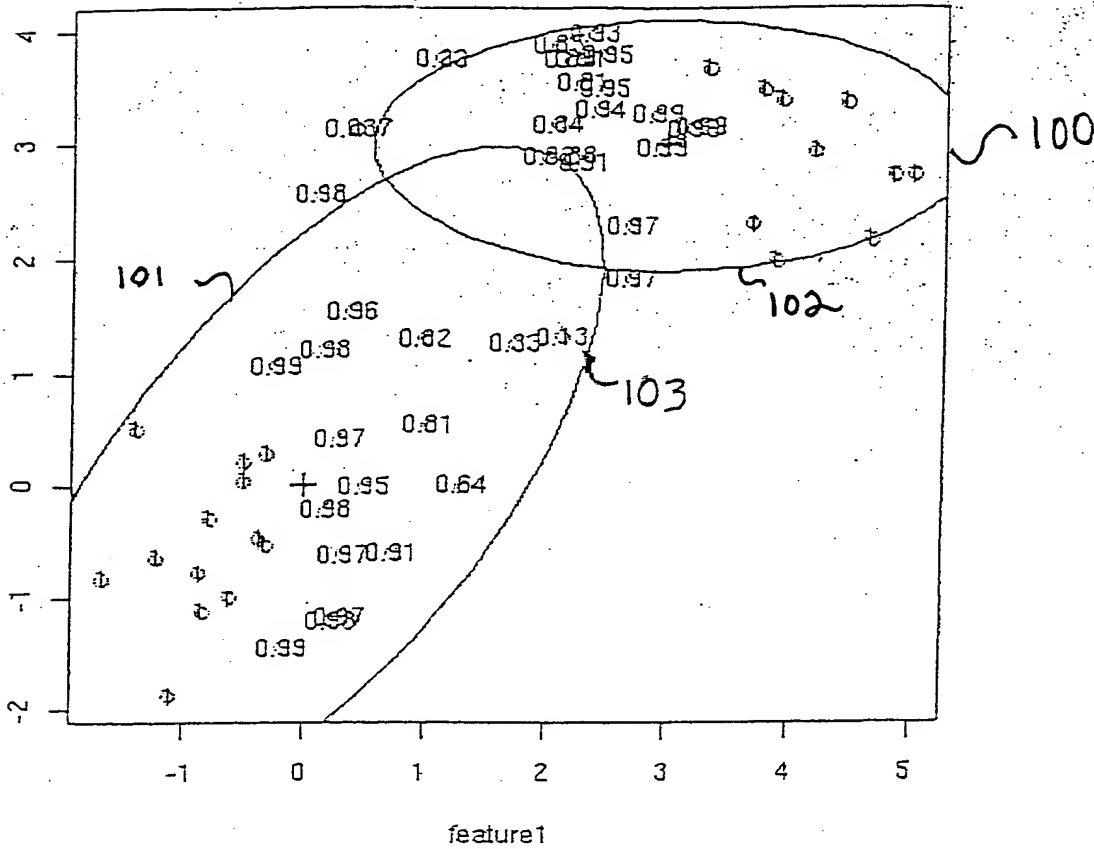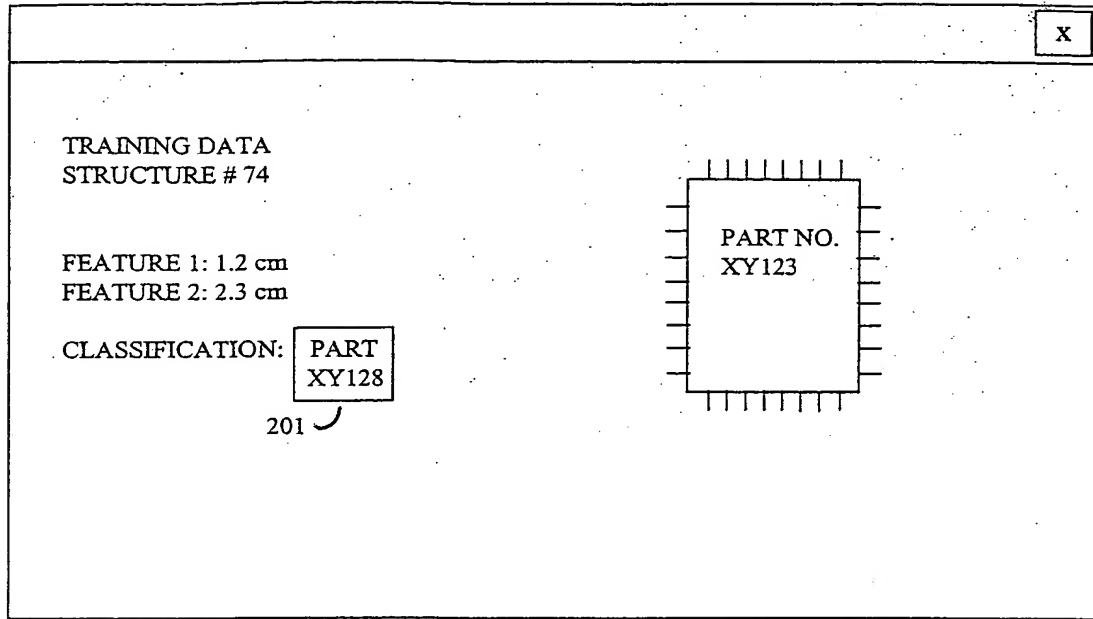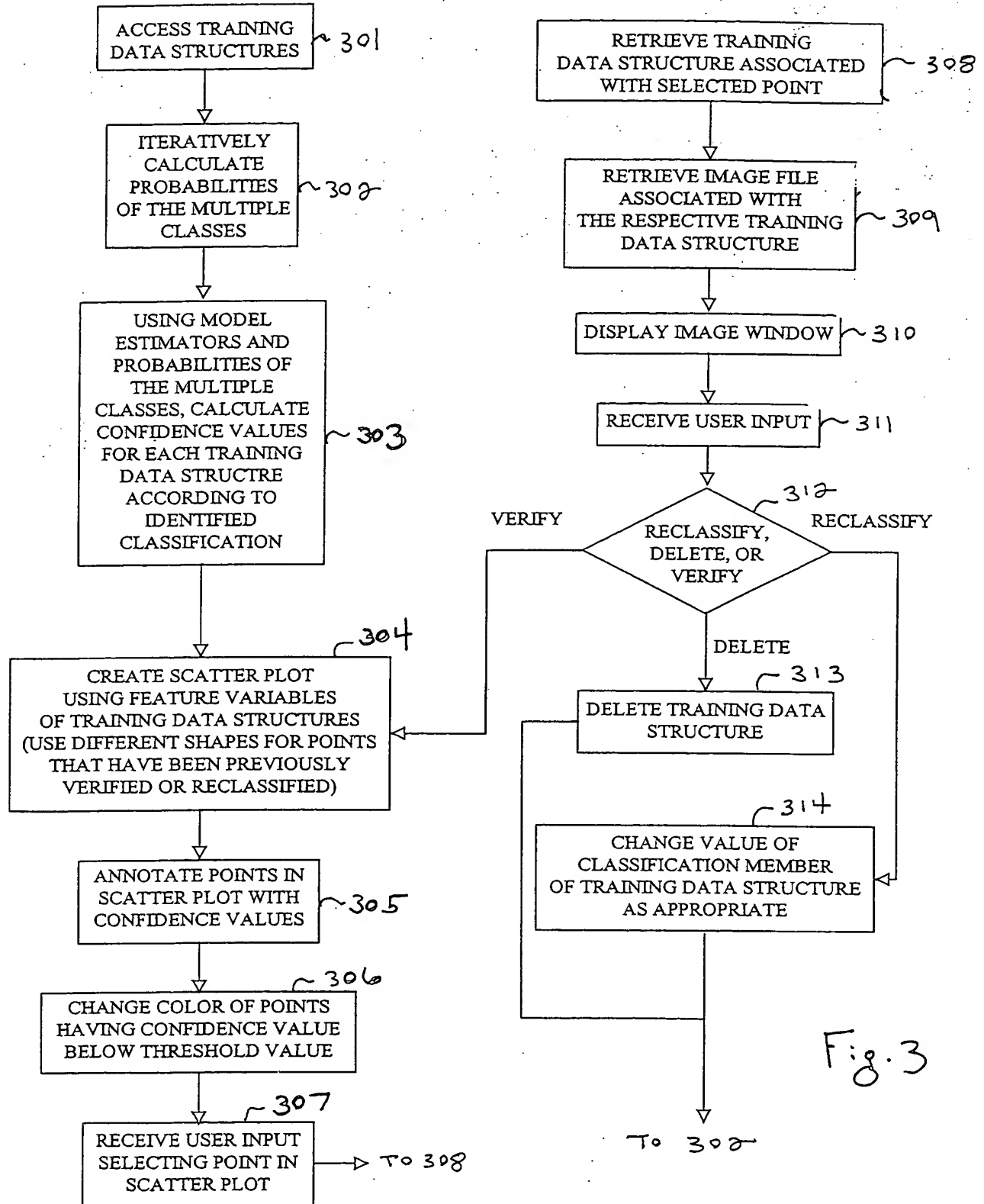Attorney Docket No. 10031315-1

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Fig. 3

ACCESS TRAINING
DATA STRUCTURES ～301

↓

ITERATIVELY
CALCULATE
PROBABILITIES
OF THE MULTIPLE
CLASSES ～302

↓

USING MODEL
ESTIMATORS AND
PROBABILITIES OF
THE MULTIPLE
CLASSES, CALCULATE
CONFIDENCE VALUES ～303
FOR EACH TRAINING
DATA STRUCTRE
ACCORDING TO
IDENTIFIED
CLASSIFICATION

↓

CREATE SCATTER PLOT ～304
USING FEATURE VARIABLES
OF TRAINING DATA STRUCTURES
(USE DIFFERENT SHAPES FOR POINTS
THAT HAVE BEEN PREVIOUSLY
VERIFIED OR RECLASSIFIED)

↓

ANNOTATE POINTS IN
SCATTER PLOT WITH ～305
CONFIDENCE VALUES

↓

CHANGE COLOR OF POINTS ～306
HAVING CONFIDENCE VALUE
BELOW THRESHOLD VALUE

↓

RECEIVE USER INPUT ～307
SELECTING POINT IN
SCATTER PLOT → TO 308

RETRIEVE TRAINING
DATA STRUCTURE ASSOCIATED ～308
WITH SELECTED POINT

↓

RETRIEVE IMAGE FILE
ASSOCIATED WITH
THE RESPECTIVE TRAINING ～309
DATA STRUCTURE

↓

DISPLAY IMAGE WINDOW ～310

↓

RECEIVE USER INPUT ～311

↓

～312

VERIFY ◁—— RECLASSIFY,
DELETE, OR
VERIFY ——▷ RECLASSIFY

DELETE

↓

DELETE TRAINING DATA ～313
STRUCTURE

↓

CHANGE VALUE OF ～314
CLASSIFICATION MEMBER
OF TRAINING DATA STRUCTURE
AS APPROPRIATE

Fig. 3

↓

TO 302

SYSTEM AND METHOD FOR PROCESSING TRAINING
DATA FOR A STATISTICAL APPLICATION
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Fig. 4

~ 400

COMPUTER SYSTEM

~ 401

| PROCESSOR |

~ 402

| DISPLAY |

~ 403

| INPUT PERIPHERAL(S) |

~ 405

NON-VOLATILE MEMORY

~ 406

INTERACTIVE SCATTER PLOT
UTILITY

| SCATTER PLOT DISPLAY ROUTINE |

~ 407

| CLASS PROBABILITY CALCULATION
ROUTINE |

~ 409

| USER INPUT ROUTINE |

~ 410

~ 408

| CONFIDENCE VALUE CALCULATION
ROUTINE |

| IMAGE WINDOW DISPLAY ROUTINE |

~ 411

| TRAINING DATA STRUCTURES |

412

| IMAGE FILES |

413